Gracilaria edulis as phytoremediation agent to improve shrimp pond water quality

Abstract

Experimental tank cultivation of Gracilaria edulis has been performed without processing for seedlings. Based on logistic growth model, homogeneity and heterogeneity of growth were tested. The analysis was performed through a model selection approach with numerically- partitioned active biomass data. Based on the R2 coefficient, the active and inactive biomass for vegetative propagation was 0.25% and 99.75%, respectively. The active portion of biomass was employed to logistic model showing R2 coefficient of 0.9963. The results provide a concrete reason for the needs to activate biomass, and to manage the maximum sustainable yield in a phytoremediation system.